

Claims

[c1] A method to form a reworkable compression seal between an electronic module and a cap, the method comprising:

configuring a tapered edge on at least a portion of the edge defining a perimeter of the electronic module;

configuring the cap with an opening to receive the electronic module therein;

disposing a compression seal with the cap, said seal configured to form a seal between the electronic module and the cap;

coupling a plurality of side loaders to said cap and aligned to receive said tapered edge on the electronic module, each side loader of said plurality of side loaders configured to engage said tapered edge and provide sufficient compression to said compression seal disposed between said electronic module and the cap.

[c2] The method as recited in claim 1, further comprising:

configuring at least one of the side loaders to be a fixed side loader with respect to said cap, said fixed side loader is configured to abut two contiguous side walls defining the electronic module, the side walls having the

tapered edge are configured in the electronic module to align the module with respect to said cap, said fixed side loader having a corresponding tapered surface edge in communication with the tapered edge of the electronic module;

configuring two of the side loaders to be adjustable side loaders with respect to said cap, said adjustable side loaders having a corresponding tapered surface edge in communication with the tapered edge of the electronic module, said adjustable side loaders configured to be adjusted with respect to said fixed side loader to vary an amount of compression force exerted on said compression seal from the electronic module.

- [c3] The method as recited in claim 1, further comprising:
configuring all of the side loaders to be adjustable side loaders with respect to said cap, said adjustable side loaders having a corresponding tapered surface edge in communication with the tapered edge of the electronic module, said adjustable side loaders configured to be adjusted with respect to said cap to vary an amount of compression force exerted on said compression seal from the electronic module.
- [c4] The method as recited in claim 2, wherein when said two adjustable side loaders are moved toward said fixed side loader, the compression force on said compression seal

is increased due to said tapered surface edges on said side loaders acting on said tapered edge of the electronic module.

- [c5] The method as recited in claim 2, wherein said fixed side loader includes two fixed side loaders abutting said two contiguous side walls defining the electronic module, said side walls having said tapered edge configured in the electronic module to align the module with respect to said cap.
- [c6] The method as recited in claim 1, wherein each of said side loaders includes a biasing member extending from at least a portion of said tapered surface edge of said each side loader operably in contact with said tapered surface of the electronic module.
- [c7] The method as recited in claim 6, wherein said biasing member includes at least one of, including combinations of at least one of:
 - a compression spring;
 - a "S" spring;
 - a cushion; and
 - a resilient insert disposed between said tapered edge of the electronic module and the tapered surface edge of said side loaders.

- [c8] The method as recited in claim 6, wherein said biasing member is disposed on either side of a center portion in contact with said tapered edge of the module, each biasing member extending to outboard ends defining a length of each side loader, said biasing member configured to allow for different coefficient of thermal expansion between materials of the electronic module and said cap.
- [c9] The method as recited in claim 8, wherein said center portion is configured to positively locate the electronic module into a proper position.
- [c10] The method as recited in claim 1, wherein at least one of said side loaders is fixed with respect to said cap using one of headed mechanical fasteners and dowels extending therethrough into said cap.
- [c11] The method as recited in claim 2, wherein said two adjustable side loaders are translatable with respect to said cap using one of headed mechanical fasteners and dowels extending through elongated openings configured therein and fixed into said cap.
- [c12] The method as recited in claim 1, further comprising: configuring a channel in the cap to receive said compression seal.

[c13] A system to form a reworkable compression seal between an electronic module and a cap comprising:
an electronic module having a tapered edge configured on at least a portion of the edge defining a perimeter of the electronic module;
a cap configured with an opening to receive the electronic module therein;
a compression seal disposed with the cap, said seal configured to form a seal between the electronic module and the cap;
a plurality of side loaders operably coupled to said cap and aligned to receive said tapered edge on the electronic module, each side loader of said plurality of side loaders configured to engage said tapered edge and provide sufficient compression to said compression seal disposed between said electronic module and the cap.

[c14] The system as recited in claim 13, wherein at least one of said side loaders is a fixed side loader, fixed with respect to the cap, said fixed side loader is configured to abut two contiguous side walls defining said electronic module, the side walls having the tapered edge are configured in said electronic module to align said electronic module with respect to said cap, said fixed side loader having a corresponding tapered surface edge in communication with the tapered edge of said electronic module,

two of said plurality of side loaders are configured to be adjustable side loaders with respect to said cap, said adjustable side loaders having a corresponding tapered surface edge in communication with said tapered edge of said electronic module, said adjustable side loaders configured to be adjusted with respect to said fixed side loader to vary an amount of compression force exerted on said compression seal from said electronic module.

- [c15] The system as recited in claim 13, wherein all of the side loaders are configured to be adjustable side loaders with respect to said cap, said adjustable side loaders having a corresponding tapered surface edge in communication with the tapered edge of the electronic module, said adjustable side loaders configured to be adjusted with respect to said cap to vary an amount of compression force exerted on said compression seal from the electronic module.
- [c16] The system as recited in claim 14, wherein when said two adjustable side loaders are moved toward said fixed side loader, the compression force on said compression seal is increased due to said tapered surface edges on said side loaders acting on said tapered edge of said electronic module.
- [c17] The system as recited in claim 14, wherein said fixed

side loader includes two fixed side loaders abutting said two contiguous side walls defining said electronic module, said side walls having said tapered edge configured in said electronic module to align said electronic module with respect to the cap.

- [c18] The system as recited in claim 13, wherein each of said side loaders includes a biasing member extending from at least a portion of said tapered surface edge of said each side loader operably in contact with said tapered surface of said electronic module.
- [c19] The system as recited in claim 18, wherein said biasing member includes at least one of, including combinations of at least one of:
 - a compression spring;
 - a "S" spring;
 - a cushion; and
 - a resilient insert disposed between said tapered edge of said electronic module and said tapered surface edge of said side loaders.
- [c20] The system as recited in claim 18, wherein said biasing member is disposed on either side of a center portion in contact with said tapered edge of said electronic module, each biasing member extending to outboard ends defining a length of each said side loader, said biasing mem-

ber configured to allow for different coefficient of thermal expansion between materials of said electronic module and said cap.

- [c21] The system as recited in claim 20, wherein said center portion is configured to positively locate said electronic module into a proper position.
- [c22] The system as recited in claim 13, wherein at least one of said side loaders is fixed with respect to said cap using one of headed mechanical fasteners and dowels extending therethrough into said cap.
- [c23] The system as recited in claim 14, wherein said two adjustable side loaders are translatable with respect to said cap using one of headed mechanical fasteners and dowels extending through elongated openings configured therein and fixed into said cap.
- [c24] The system as recited in claim 13, further comprising: a channel configured in the cap to receive said compression seal.